

Presented By
City of Yukon and Veolia Water North America

Our Mission Continues

We are proud to present once again our annual water quality report covering all testing performed between January 1 and December 31, 2014. Most notably, last year marked the 40th anniversary of the Safe Drinking Water Act (SDWA). This rule was created to protect public health by regulating the nation's drinking water supply. We celebrate this milestone as we continue to manage our water system with a mission to deliver the best-quality drinking water. By striving to meet the requirements of SDWA, we are ensuring a future of healthy, clean drinking water for years to come.

Please let us know if you ever have any questions or concerns about your water.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. We meet the first and third Tuesdays of each month beginning at 7:30 p.m. in the Centennial Building located at 12 South Fifth Street, Yukon, OK.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from

infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/

drink/hotline.

To the Last Drop

The National Oceanic and Atmospheric Administration (NOAA) defines drought as a deficiency in precipitation over an extended period of time, usually a season or more, resulting in a water shortage causing adverse impacts on vegetation, animals, and/or people. Drought strikes in virtually all climate zones, from very wet to very dry.

Thereare primarily three types of drought: Meteorological Drought refers to the lack of precipitation, or the degree of dryness and the duration of the dry period; Agricultural Drought refers to the agricultural impact of drought, focusing on precipitation shortages, soil water deficits, and reduced groundwater or reservoir levels needed for irrigation; and Hydrological Drought pertains to drought that usually occurs following periods of extended precipitation shortfalls that can impact water supply (i.e., stream flow, reservoir and lake levels, groundwater).

Drought is a temporary aberration from normal climatic conditions; thus it can vary significantly from one region to another. Although drought is normally occurring, human factors, such as water demand, can exacerbate the duration and impact that drought has on a region. By following simple water conservation measures, you can help significantly reduce the lasting effects of extended drought.

To learn more about water conservation efforts, check out the U.S. EPA's Water Conservation Tips for Residents at www.epa.gov/region1/eco/drinkwater/water_conservation_residents.html.

Where Does My Water Come From?

The City of Yukon customers are fortunate because we enjoy an abundant water supply from two sources. Our water sources are groundwater from Garber Wellington Aquifer and purchased water provided by Oklahoma City (OKC). The aquifer supplies an average of approximately 2.6 million gallons of groundwater per day to our residents. In order to meet the new arsenic regulations, Yukon water is blened with OKC Water before Yukon's point of entry. Depending on the month, 60 percent of the total water supply for Yukon is OKC Water. This process allows the City of Yukon to remain in compliance with the federal regulations.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Source Water Assessment

The City of Yukon and Veolia Water has conducted a Source Water Assessment and Protection Ground Water Sources Report which was submitted to the Oklahoma Department of Environmental Quality in 2002. The report indicated that the Qualitative Susceptibility Rating (QSR) was low. This report is on file with Veolia Water and may be reviewed at 501 West Wagner Road, Yukon, OK.

Questions?

For more information about this report, or for any questions relating to your drinking water, please call Gary Giddings, Project Manager, at (405) 354-6245. Veolia Water is located at 501 W. Wagner Road in Yukon, OK 73099.

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The state requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Regulation (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality.

REGULATED SUBSTANCES									
				Oklahoma City-Draper WTP		City	City of Yukon		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2012	15	0	< 0.4744	<0.4744<0.4744	6.12 ¹	3.98-6.121	No	Erosion of natural deposits
Arsenic (ppb)	2013	10	0	<2	<2-<2	4	0–11.4	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2013	2	2	0.057	0.032-0.057	0.1811	0.181-0.181	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beta/Photon Emitters ² (pCi/L)	2012	50	0	2.611	2.611–2.611	2.631	2.63-2.631	No	Decay of natural and man-made deposits
Bromate (ppb)	2014	10	0	<8.75	<8.75-<8.75	NA	NA	No	By-product of drinking water disinfection
Chloramines (ppm)	2014	[4]	[4]	3.48	2.10-4.10	NA	NA	No	Water additive used to control microbes
Chlorine (ppm)	2014	[4]	[4]	NA	NA	1.0	1.0-1.0	No	Water additive used to control microbes
Combined Radium (pCi/L)	2012	5	0	<0.495	<0.495-<0.495	10.271,3	10.27-10.271,3	Yes ³	Erosion of natural deposits
Fluoride (ppm)	2014	4	4	0.86	0.81–0.87	0.49	0.49-0.49	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs]-Stage 2 (ppb)	2014	60	NA	50.85	13.20-61.60	30	28.7-30.4	No	By-product of drinking water disinfection
Nitrate (ppm)	2014	10	10	0.346	0.310-0.458	0.42	0.42-0.42	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes]– Stage 2 (ppb)	2014	80	NA	66.31	21.90–75.69	44	42.1–45.9	No	By-product of drinking water disinfection
Total Coliform Bacteria (% positive samples)	2014	5% of monthly samples are positive	0	3	NA	0	NA	No	Naturally present in the environment
Total Organic Carbon (ppm)	2014	TT	NA	0.457	0.457-1.58	NA	NA	No	Naturally present in the environment
Turbidity ⁴ (NTU)	2014	TT	NA	0.23	0.19-0.23	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2014	TT=95% of samples <0.3 NTU	NA	100	NA	NA	NA	No	Soil runoff
Uranium (pCi/L)	2014	27	0	NA	NA	3.2	3.2-3.2	No	Erosion of natural deposits

tap water samples were conected for lead and copper analyses from sample sites unroughout the community.										
				Oklahoma C	ity-Draper WTP	City of Yukon				
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE	
Copper (ppm)	2012	1.3	1.3	0.083	0/30	0.0329	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits	
Lead (ppb)	2012	15	0	2.53	0/30	0	1/30	No	Corrosion of household plumbing systems; Erosion of natural deposits	

UNREGULATED CONTAMINANT MONITORING REGULATION STA	AGE 3 (UCMR3)
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				Oklahoma (City-Draper WTP	City of Yukon			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorate (ppb)	2013	NA	NA	36.4	<20.0–36.4	NA	NA	No	By-product of drinking water disinfection; Making of dyes, explosives, matches, printing fabics, herbicides, antiseptics, and toothpastes; paper pulp processing
Hexavalent Chromium (ppb)	2013	NA	NA	0.141	<0.030-0.391	9.921	8.08-9.921	No	Naturally occurring; By-product of making steel and other alloys, plating, dyes and pigments, leather, and wood preservation
Molybdenum (ppb)	2013	NA	NA	2.76	<1.00–3.24	NA	NA	No	Naturally occurring; By-product of making steel and other alloys, lubricants, dyes and pigments, and fertilizers
Strontium (ppb)	2013	NA	NA	295	42.9–763	1381	92.8–1381	No	Naturally occurring; By-product of making electronics and fireworks
Total Chromium (ppb)	2013	100	100	0.428	<0.200-0.471	10.21	9.39–10.21	No	Naturally occuring, By-product of making steel and other alloys, plating, dyes and pigments, leather and wood preseratives.
Vanadium (ppb)	2013	NA	NA	2.78	<0.200–7.50	64.41	31.9–64.41	No	Naturally occurring; By-product of making steel alloys, chemical manufacturing, ceramics, and batteries

UNREGULATED (CITY OF YUKON)										
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH							
Sodium (ppm)	201/	51.5	51 5 51 5							

¹ Sampled in 2014.

Definitions

AL (**Action Level**): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL (**Maximum Residual Disinfectant Level**): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

NTU (**Nephelometric Turbidity Units**): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

²The MCL for beta particles is 4 mrem/year. The U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.

³ Analysis under review by the Oklahoma Department of Environmental Quality (ODEQ).

⁴Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.